

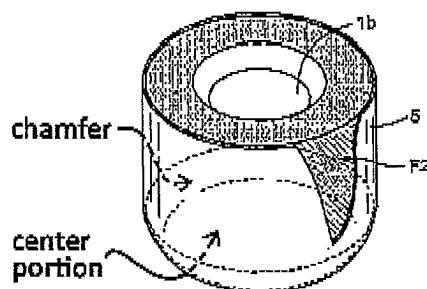
REMARKS

Claims 1-9 are in the application. Claim 2 is cancelled without prejudice to eliminate issues, and claims 1 and 3 are amended to more positively recite Applicants' patentably novel container stopper. No claims are allowed or indicated allowable.

Claims 1 and 3-9 are subject to a Restriction Requirement. The Restriction Requirement is made final by the Office Action, and claims 5-9 are withdrawn from further consideration pursuant to 37 CFR 1.142(b).

Claims 1 and 4 are provisionally rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 15 and 16 of co-pending Nakada Application No. 10/525,914. Applicants acknowledge the provisional rejection of claims 1 and 4 on the ground of non-statutory obviousness-type double patenting and will take appropriate action when claims 1 and 4 are indicated allowable over the prior art. Further, as described below, the invention according to amended claims 1 and 4 is not obvious from the Nakada Application No. 10/525,914, and the two inventions are patentably distinct from each other. Therefore, Applicants respectfully submit that no double patenting problem exists in view of the amendments to claims 1 and 3 discussed in detail below.

Claims 1, 3, and 4 are rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject which Applicants regard as the invention. Applicants respectfully traverse the rejection of claims 1, 3, and 4 under 35 U.S.C. § 112, second paragraph. However, to eliminate this issue claim 1, on which claims 3 and 4 are dependent, is amended. The limitation to the configuration of the liquid-contact surface (chamfer and center portion) recited in amended claim 1 finds support, among other places, in paragraph [0041] and Figs. 2, 7, and 8 (please also see the following extraction of Fig. 7 for the purpose of illustration).



The amendment to claim 1 regarding a thickness relationship between the center portion and the outer peripheral portion in the polyethylene bonding layer is based on the previously presented claim 2, and the addition of the expression “at the center portion” is based on paragraph [0046]. Based on the foregoing, Applicants respectfully request admission of the amendment to claim 1 and consideration of claims 1, 3, and 4.

Amended claim 1 clearly defines that the liquid-contact surface has “a chamfer continuous with the outer peripheral surface” and “a center portion surrounded by the chamfer”. Accordingly, the size and the range of the center portion relative to the liquid-contact surface become clear. The portion having a thickness of 30 μm or more is defined as “a portion of the liquid-contact surface other than the center portion”. In other words, the “center portion” and the “portion of the liquid-contact surface other than the center portion” are distinguished from each other, and the thickness of each portion is specified. Therefore, the thickness of the center portion is uniquely specified and thus becomes distinct. It should be noted that the “portion of the liquid-contact surface other than the center portion” includes the chamfer and the interface between the center portion and the chamfer. In addition, the descriptions in paragraph [0046] are introduced to claim 1. The amended claim 1 specifies the thickness relationship between the center portion and the outer peripheral portion in the polyethylene bonding layer, and thus the subjects to be compared become clear.

Based on the foregoing, Applicants respectfully request withdrawal of the rejection of claims 1, 3, and 4 under 35 U.S.C. § 112, second paragraph.

Claim 3 is objected to because of informalities identified in the Office Action. Claim 3 is amended as suggested by the Office Action. Support for the amendment to claim 3 is found, among other places, in the pending claims. Based on the foregoing, Applicants respectfully request admission of the amendment to claim 3 and withdrawal of the objection to claim 3.

Claims 1, 3, and 4 are rejected under 35 U.S.C. § 102(b) as being anticipated by Taylor WO 03/074379 (hereinafter also referred to as “Taylor”). Applicants respectfully traverse the rejection of claims 1, 3, and 4 under 35 U.S.C. § 102(b) as being anticipated by Taylor. However, to eliminate this issue claims 1 and 3 (as discussed above) are amended.

More particularly, claim 1 on which claims 3 and 4 are dependent is amended to recite a container stopper including, among other things, a core formed of an elastic material and having a liquid-contact surface and an outer peripheral surface continuous with the liquid-contact surface, the liquid-contact surface and the outer peripheral surface being coated with a skin made of a synthetic resin. The skin is a polyester skin made of a polyester resin or a synthetic resin having a polyester resin as a main component thereof, and the polyester skin is bonded to the liquid-contact surface and the outer peripheral surface of said core through a polyethylene bonding layer formed of a polyethylene resin or having a polyethylene resin as a main component thereof. The liquid-contact surface includes, among other things, a chamfer continuous with the outer peripheral surface; and a center portion surrounded by the chamfer. The polyethylene bonding layer has a thickness of 80 to 300 μm at the center portion of the liquid-contact surface, a thickness of 70 to 100 μm at an outer peripheral portion of the outer peripheral surface adjacent to the liquid-contact surface and a thickness of 30 μm or more at a portion of the liquid-contact surface other than the center portion, and the thickness of said polyethylene bonding layer at the center portion is 10 μm or more greater than the thickness of the polyethylene bonding layer at the outer peripheral portion.

Taylor describes a stopper (1) (corresponding to “container stopper” of the present application) including a core formed of an elastic material, such as cork, and having a proximal face (2) (corresponding to “liquid-contact surface” in the present application) coated with a barrier layer (3) (corresponding to “polyester skin” in the present application) including a hot melt polymer layer and a polyethylene terephthalate layer. Herein, the barrier layer (3) is formed of three layers including a polyethylene sub-layer (5), which is the closest to the core among the three layers. It is described that the polyethylene sub-layer (5) functions as a bonding layer for bonding the core and the lower permeability sub-layer (6), and polyolefin is preferably used therefore (corresponding to “polyethylene bonding layer” in the present application).

Applicants note that the barrier layer (3) of Taylor covers only the proximal face (2) of the core, and does not cover the outer peripheral surface. In addition, though Taylor describes the whole thickness of the barrier layer (3), there is no description at all regarding the thickness of polyethylene sub-layer (5). Moreover, as is apparent from Fig. 2, the polyethylene

sub-layer (5) in Taylor has a uniform thickness over the entire layer, which is completely different from the configuration of claim 1 of the present application in which the portions have different thicknesses. In other words, Taylor fails to aggressively describe that “the polyethylene sub-layer (5) has a thickness of 80 to 300 μm at the center portion, a thickness of 70 to 100 μm at the outer peripheral portion of the outer peripheral surface adjacent the liquid-contact surface, and a thickness of 30 μm or more at a portion of the liquid-contact surface other than the center portion”, and further fails to describe or suggest that “the thickness of the polyethylene sub-layer (5) at the center portion is 10 μm or more greater than the thickness of the polyethylene sub-layer (5) at the outer peripheral portion”.

As shown above, amended claim 1 has novelty over Taylor. Likewise, claims 3, and 4, depending from claim 1, also have novelty over Taylor. Based on the foregoing, Applicants respectfully request withdrawal of the rejection of claims 1, 3, and 4 under 35 U.S.C. § 102(b) as being anticipated by Taylor.

Claims 1, 3, and 4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakada et al. WO 2004/020300 (hereinafter also referred to as “Nakada”), which corresponds to U.S. Patent Application Publication No. 2006/0151424 relied on for translation and reference. Applicants respectfully traverse the rejection of claims 1, 3, and 4 under 35 U.S.C. § 103(a) as being unpatentable over Nakada and request reconsideration thereof. Claims 1, 3, and 4 were discussed above.

Nakada describes a container stopper comprising a core (1) formed of an elastic material and having a liquid-contact surface (F1) and an outer peripheral surface (F2), the surfaces (F1, F2) being coated with a polyethylene terephthalate skin (2) through a polyethylene adhesive film (5) (corresponding to “polyethylene bonding layer” in the present application).

However, Nakada fails to describe a thickness of the polyethylene adhesive film (5). In addition, as best shown in Figs. 3 and 4, the polyethylene adhesive film (5) in Nakada has a uniform thickness over the entire layer, which is completely different from the configuration of claim 1 of the present application in which the portions have different thicknesses. In other words, Nakada does not describe at all that “polyethylene adhesive film (5) has a thickness of 80 to 300 μm at the center portion, a thickness of 70 to 100 μm at an outer peripheral portion of the

outer peripheral surface adjacent the liquid-contact surface, and a thickness of 30 μm or more at a portion of the liquid-contact surface other than the center portion”, and further fails to describe or suggest that “the thickness of the polyethylene adhesive film (5) at the center portion is 10 μm or more greater than the thickness of the polyethylene adhesive film (5) at the outer peripheral portion”.

As explained above, neither Taylor nor Nakada aggressively describes with respect to the various thicknesses at the different portions of the polyethylene bonding layer. Further, Taylor and Nakada fail to describe and suggest that the thicknesses of the center portion and the outer peripheral portion in the polyethylene bonding layer are retained in a predetermined relationship (i.e., the thickness of the center portion is 10 μm or more greater than the thickness of the outer peripheral portion). Moreover, specifying the thickness relationship between the center portion and the outer peripheral portion, while altering each of the thickness of the center portion and the thickness of the outer peripheral portion, is not possible without the intensive and extensive studies including various trials and errors, and the relationship is not obtained merely as a modification of the thickness of the polyethylene bonding layer. Therefore, even in view of Taylor and Nakada, the configuration of amended claim 1 cannot be easily conceived of.

In addition, the invention according to amended claim 1 has the following excellent effect. Specifically, the polyethylene bonding layer is configured to have a thickness of 80 to 300 μm at the center portion, a thickness of 70 to 100 μm at the outer peripheral portion of the outer peripheral surface adjacent the liquid-contact surface, and a thickness of 30 μm or more at a portion of the liquid-contact surface other than the center portion, and further, configured to have a thickness at the center portion which is 10 μm or more greater than the thickness at the outer peripheral portion. Therefore, even when the surface of the core (especially the liquid-contact surface) has fine recesses, the formation of pinholes in the polyester skin can be prevented which may otherwise be caused by such recesses, and in addition, the formation of wrinkles in the outer peripheral surface of the core can be surely prevented. Such an advantageous effect is demonstrated in the results of the experiments shown in Fig. 8.

As described above, amended claim 1 is not obvious from the inventions

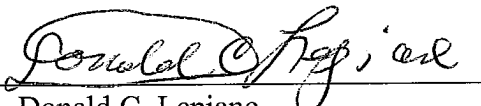
Application No. 10/588,593
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Attorney Docket No. 0388-062233

according to Taylor and Nakada.

Likewise, claims 3 and 4 depending from claim 1 are not obvious. Based on the foregoing, Applicants respectfully request withdrawal of the rejection of claims 1, 3, and 4 under 35 U.S.C. § 103(a) as being unpatentable over Nakada and request allowance of claims 1, 3, and 4.

This Amendment represents a sincere effort to place this application in condition for allowance, in the event issues remain, the Examiner is invited to call the undersigned before further action is taken on this case.

Respectfully submitted,
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